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# AN APPRAISAL OF THE BOMBING OF



# **NORTH VIETNAM** (U)

(THROUGH 15 SEPTEMBER 1967)
SEPTEMBER 1967
S-2508/AP4A

Prepared Jointly by
The Central Intelligence Agency
and
The Defense Intelligence Agency

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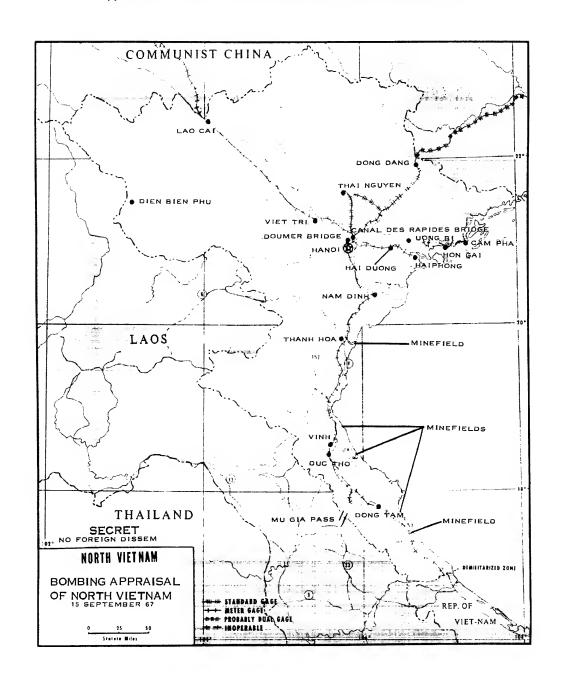
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# AN APPRAISAL OF THE BOMBING OF NORTH VIETNAM (THROUGH 15 SEPTEMBER 1967)

#### **FOREWORD**

This report is prepared on a monthly basis at the request of the Secretary of Defense for an evaluation of certain effects of the ROLLING THUNDER program. The report covers three general areas of concern: Effects on Military Targets; Leadership and Public Reactions; and Effects on the NVN Economy. The discussion of political effects is limited to those developments within North Vietnam which relate to Hanoi's attitude toward continuing the war and the effects the ROLLING THUNDER attack has on civilian morale in North Vietnam.

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# AN APPRAISAL OF THE BOMBING OF NORTH VIETNAM THROUGH 15 SEPTEMBER 1967

#### SUMMARY

- 1. (S/NFD) Air activity over North Vietnam remained at a high level during the period, although less favorable flying conditions precluded strikes against some planned targets.

  Several targets in the Hanoi and Haiphong areas associated with the transportation and distribution system were struck for the first time.
- 2. (S/NFD) The general condition and capability of the North Vietnamese transport system were affected throughout the period by damage to bridges over the Red River and the Canal des Rapides, interdicted in August. These two vital railroad/highway bridges, as well as the railroad bypass bridge over the Canal des Rapides, were unserviceable to rail and highway traffic on 9 September. This has resulted in the most serious disruption to the North Vietnamese rail system since the beginning of the ROLLING THUNDER Program. However, essential military and economic traffic continues to move to Hanoi and to the south via ferries, highway bypass bridges, and over the inland waterway system.
- 3. (S/NFD) North Vietnam's present operating inventories of transport equipment are being maintained at an adequate level by imports and possibly the use of Chinese rolling stock. The destruction and damage to freight cars and locomotives, however, remained at the same high level of the past two months, while

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while vehicle damage increased to record highs. The preponderance of steadily rising vehicle losses in 1967 continues to be in the Panhandle area. Reported damage to watercraft during August was more than double the previous month, with most attacks against concentrations of craft south of the 20th Parallel.

- 4. (S/NFD) Attacks against industrial facilities, powerplants, petroleum storage depots and other significant economic targets remained at a relatively low level. Virtually all modern industrial output has been halted since June, and it does not appear that North Vietnam will attempt major repairs to most plants so long as the bombing continues at present intensity. Although greatly increased amounts of imports have been needed to sustain the economy, there is no evidence of a critical shortage of equipment or essential commodities or of a reluctance on the part of Communist countries to provide needed goods.
- 5. (S/NFD) Foreign exchange losses resulting from sharply decreased seaborne exports of coal and the continued absence of seaborne exports of cement, pig iron, and apatite were larger in August than in any month since the inception of the ROLLING THUNDER Program. Ship congestion at Haiphong was reduced significantly by the end of August. This decline in the number of ships in port does not reflect an attendant improvement in port handling capacities or an alleviation of stockpiles in the Haiphong area. It does reflect revised shipping

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schedules that resulted in 14 ships in port at the end of August compared with 23 at the end of July.

6. (S/NFD) Attacks against LOCs in the northeast sector of
North Vietnam have created the most difficult logistics problems
the country has yet faced. Disruption and dislocation of normal
transportation patterns have caused additional delays and greater
use of less efficient modes of transport. Strikes in the vicinity
of the Chinese Communist border and in the Hanoi and Haiphong
complexes are denying the enemy important sanctuaries for logistics
marshalling areas. Because the logistics requirements are modest,
the North Vietnamese still retain the capability to support activities
in South Vietnam and Laos at present or increased combat levels and
force structures. However, the cumulative effects of the air strikes
have degraded North Vietnam's capability for sustained large-scale
conventional military operations against South Vietnam.

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#### Effects on Military Targets

- 1. (S/NFD) Air activity over North Vietnam remained at a high level during the period, although less favorable flying conditions precluded strikes against some planned targets.

  Most of the effort continued to be against the transport system, particularly the railroads in the northeast. During August, damage to vehicles was at a record high, damage to watercraft was about the same as the record high achieved in May, and damage to railroad rolling stock remained at a high level. Several targets in the Hanoi and Haiphong areas associated with the transportation and distribution system were struck for the first time. Airfields, military barracks, electric-power facilities, storage sites, surface-to-air (SAM) missile installations, the Cam Pha port facilities, and ammunition depots were also hit.
- 2. (S/NFD) The general condition and capability of the North Vietnamese transportation system were affected throughout the period by damage to bridges over the Red River and the Canal des Rapides, interdicted on 11 and 12 August, respectively. These two vital railroad/highway bridges, as well as the railroad bypass bridge over the Canal des Rapides, interdicted on 22 August, remained unserviceable to rail traffic. These interdictions have resulted in the most serious disruption to the North Vietnamese rail system since the beginning of the ROLLING THUNDER Program. Until

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these important bridges are repaired or alternate bridges constructed, it will not be possible to maintain the normal flow of rail traffic. However, the transportation networks between Haiphong and Hanoi are varied and interconnecting and provide great flexibility in logistics operations. Essential military and economic traffic continues to move to Hanoi and the South via rail ferries available at both bridges, highway bypass bridges and ferries at each bridge, and over the inland waterway system.

- 3. (S/NFD) The Doumer Bridge over the Red River was unserviceable on 9 September, with no signs of reconstruction of the main through truss to restore rail traffic. Some repair activity noted on the bridge may be preparation for the restoration of limited highway traffic. The main railroad/highway bridge over the Canal des Rapides and a rail bypass bridge were unserviceable on 9 September but work was progressing rapidly on the main bridge.
- 4. (S/NFD) Effects of MK-36 influence bombs dropped in the vicinity of the rail ferry bypass for the Doumer Bridge were apparent in photographs of 31 August. One approach to the ferry site was cut, and three pieces of rolling stock were damaged or destroyed. Although traffic has been disrupted, the rail ferry site is still serviceable.
- 5. (S/NFD) Air strikes against other important rail targets continued at a high level during the period. The Hanoi-Haiphong line was attacked repeatedly and several railroad facilities damaged, some of which were new targets in the Haiphong area. The railroad/highway bridge and the

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west railroad yard, both in the city of Haiphong, were struck. Photography indicates both are serviceable. Attacks have probably disrupted the movement of traffic on the Haiphong line, already hindered by the use of several bypasses and the seeding of the waterways at the two rail bridges near Hai Duong with MK-36 influence bombs. Nevertheless, this line was probably operational for through rail service to the Doumer Bridge during most of the period.

- 6. (S/NFD) Important targets were also struck on the Hanoi-Dong Dang line, North Vietnam's principal rail connection with Communist China. Key rail yards and important bridges, including several in the Chinese buffer zone, were attacked. Photography of late August and early September indicates the line was serviceable from the Chinese border to the Canal des Rapides. The Hanoi-Lao Cai line was struck at several locations, including some targets in the Chinese buffer zone. The most significant interdiction continued to be the Viet Tri Rail and Highway Bridge where rail and highway ferries are required.
- 7. (S/NFD) The rail line south of Hanoi was struck heavily during the period. This line is closed to through traffic from Hanoi to Vinh, but it is being used to shuttle supplies between the several points of interdiction. Pilots continue to report rolling stock at several rail yards and there is recent photography of continued activity at the rail facilities in the Thanh Hoa transshipment area. Goods are transloaded at Thanh Hoa from rail-to-road and from conventional to

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smaller capacity rolling stock to overcome track conditions and limited bridge capacities on the rail line south of Thanh Hoa. In addition, sighting of large numbers of waterborne logistics craft indicates the area continues to function as an important supply and transshipment area. The tramway south of Vinh from Duc Tho to Dong Tam has gradually deteriorated and repairs are not being accomplished as rapidly as previously.

- 8. (S/NFD) Destruction and damage to railroad freight cars and locomotives remained at the same high levels of June and July. Most of the rolling stock sighted was within ten miles of Hanoi or close to the Chinese border. Despite the heavy loss of railroad equipment since June and the inefficient and time-consuming operations that are required, the present operating inventory of at least 2,000 railroad cars is adequate to meet North Vietnam's needs.
- 9. (S/NFD) Air strikes against the highway system continued at a high level during the reporting period. Most major routes remained serviceable and vehicle activity was at a high level. The most significant damage inflicted against highways during the period resulted from attacks against several bridges along the routes between Hanoi and Haiphong. Damage to these bridges together with those over the Red River and Canal des Rapides has seriously hampered movement between Hanoi and Haiphong. However, the extensive network of alternate motorable roads,

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although slower and more circuitous, is capable of clearing the present level of imports from the Haiphong area.

- 10. (S/NFD) During early September, there was an exceptionally high level of vehicle traffic south of Thanh Hoa involved in resupply activities for Laos and the DMZ area. The preponderance of steadily rising vehicle losses in 1967 continues to be in this area. Although truck damage and sightings increased to record highs, there are no indications of any serious motor truck transportation problems or of equipment shortages.
- 11. (S/NFD) Key waterways continued to be seeded with MK-36 influence bombs. Areas seeded include rail and highway ferry sites as well as estuaries of major inland water routes. The effects of these operations cannot be determined, but they presumably have caused considerable disruption to transport operations.
- 12. (S/NFD) As highway and rail targets are subjected to increasing attacks, North Vietnam is placing greater reliance on waterborne transport. Dredging operations and some new lock construction noted in recent photographs reflect a continuing effort to improve the waterway system. The importation and construction of barges and other watercraft have increased since 1966.
- 13. (S/NFD) Reported damage to watercraft during August was more than double the previous month. Most attacks were against concentrations of craft south of the 20th Parallel, with only light strike

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activity in the northeast. Photography of late August showed nearly 300 barges, junks, and sampans of various sizes concentrated in the Red River about 25 kilometers south of Hanoi engaged in transshipment operations. This activity appears to be in response to the traffic problems arising from the interdiction of railroad and highway bridges over the Red River and Canal des Rapides.

- 14. (S/NFD) The North Vietnamese air defense posture changed little from the previous period. Air engagements continued at a low level -- there were six between 23 August and 15 September, which resulted in the loss of two MIGs and two US aircraft. SAMs fired in the same period totalled 211, a decline from the previous period; four US aircraft were downed by SAMs.

  None of these firings took place in the DMZ area. SAM activity in the vicinity of the DMZ will probably continue at a relatively low level because of the inherent logistics problems and the US SAM-suppression efforts there. Country-wide, the number of anti-aircraft (AA) guns continued to show a slight increase, primarily in the 37- and 57-mm categories. Over the past four months, the number of AA guns detected has increased about 20 per cent, most of it in the southern Panhandle area.
- 15. (S/NFD) Attacks against LOCs in the northeast sector of North Vietnam have created the most difficult logistics problems the country has yet faced. Disruption and dislocation of normal

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transportation patterns have caused additional delays and greater use of less efficient modes of transport. Strikes in the vicinity of the Chinese Communist border and in the Hanoi and Haiphong complexes are denying the enemy important sanctuaries for logistics marshalling areas. Because the logistics requirements are modest, the North Vietnamese still retain the capability to support activities in South Vietnam and Laos at present or increased combat levels and force structures. However, the cumulative effects of the air strikes have degraded North Vietnam's capability for sustained large-scale conventional military operations against South Vietnam.

#### Leadership and Public Reactions

- 16. (S/NFD) The Hanoi leadership recently underscored its determination to continue the war in a series of statements at meetings celebrating the anniversary of North Vietnam's National Day on 2 September. Making the major address on the occasion, North Vietnamese Premier Pham Van Dong reiterated Hanoi's offer of talks with the US only after the bombings were unconditionally stopped. The Premier also emphasized that the US had no right whatsover to demand any reciprocity for such an action.
- 17. (S/NFD) Propaganda emanating from Hanoi continues to portray the US bombing campaign as a deliberate effort to destroy civilian targets. On 9 September the regime broadcast a lengthy list of

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alleged crimes perpetrated by the US that included the deliberate bombing of hospitals, schools, dikes, etc. In the past, Hanoi has tied such announcements to the activities of the so-called "War Crimes Tribunal" which is scheduled to open another session next month in Europe.

18. (S/NFD) Evidence on the current situation within North Vietnam continues to suggest that the morale of the populace is holding up despite increased bombings. There has been nothing to suggest that the growing problems have been sufficient to effect a change in the regime's war policy. However, food shortages, difficulties connected with various aspects of evacuation, and the frustration and anxiety of living in a dangerous war situation continue to be reported.

#### Effects on the Economy

19. (S/NFD) Attacks against industrial facilities, powerplants, petroleum storage depots, and other significant economic targets remained at a relatively low level during the reporting period as primary emphasis continued to be concentrated against key bridges, rail yards, and storage areas. Virtually all modern industrial output has been halted since June and it does not appear that North Vietnam will attempt major repairs to most plants so long as the bombing continues at present levels. All of the central generating plants in the Hanoi-Haiphong network, with the exception of the Hanoi plant itself, have been out of service since early June. Strikes against transport targets close to the urban areas

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of Hanoi and Haiphong have resulted in calls for a greater evacuation effort -- with its attendant negative effects on production -- especially from the Hanoi area. Although greatly increased amounts of imports have been needed to sustain the economy, there is no evidence of a critical shortage of equipment or essential commodities or of a reluctance on the part of Communist countries to supply needed goods.

- 20. (S/NFD) Only about 20 per cent (35,000 kw to 40,000 kw) of North Vietnam's total electric generating capacity is operational. Restrikes were carried out against electric generating facilities at Uong Bi and Nam Dinh during the reporting period. Although post-strike photography of three restrikes against the facility at Uong Bi in late August is unavailable, an intense salvaging effort observed at the power-plant during the past two months may have been effectively negated. In addition, progress in salvaging equipment at the Viet Tri and Hon Gai powerplants may render these plants partially operable within one to two months. The remaining damaged facilities, except for the Hanoi power-plant which is believed to be operating at about 50 per cent of installed capacity, will require a minimum of three months to be restored to partial operation, and in most cases much longer periods. There was no significant damage inflicted on other modern industrial facilities during the reporting period.
- 21. (S/NFD) The sharp reduction in output of modern industry resulting from physical damage and shortages of electric power is estimated to have affected about 30,000 workers. Complete cessation of activity at the

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Haiphong Cement Plant, and the Nam Dinh Textile Mill and cessation of primary activity at the Thai Nguyen Iron and Steel Combine -- all large employers -- accounts for about 60 per cent of the total. Workers at chemical, paper, pharmaceutical, and fertilizer plants make up the remainder. These workers -- the elite of the North Vietnamese labor force in technical competence, general industrial know-how, and labor discipline -- have undoubtedly been transferred to other productive tasks. They have likely played a significant role in the dispersal of industrial facilities to outlying regions, the repair of damaged facilities and equipment (e.g., the reconstruction of some powerplants), and as managerial cadres for general bomb damage repair.

- 22. (S/NFD) Intensified air attacks in and around Hanoi since mid-August have caused the regime to re-emphasize evacuation. A new order, reportedly now in effect, repeats earlier evacuation directives --calling for the evacuation of children, students and nonwar-related personnel -- as well as the personnel of all small industries and handicraft cooperatives, merchants, and their families. The most significant aspect of the new order is the call for some large state enterprises and most ministries to begin evacuation. To help facilitate the new order, school vacations were ended earlier than usual and school children have been returned to relocation sites after spending the summer holiday in urban areas.
- 23. (S/NFD) Prospects for the fall rice crop -- normally about two-thirds of the annual harvest -- are poor. Bombing attacks are

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believed to have been responsible for the disruption of normal farming schedules and to have exacerbated manpower problems during critical agricultural periods. In addition, drought conditions -- somewhat unusual at this time of year -- have interrupted the normal growth of this crop in areas dependent upon reservoirs and ponds for irrigation water. In the Red River delta, however, much of the rice growing area is irrigated by the river systems and will probably not be seriously affected by the drought.

24. (S/NFD) Foreign exchange losses -- resulting from sharply decreased seaborne exports of coal and the continued absence of seaborne exports of cement, pig iron, and apatite -- were larger in August than in any month since the inception of the ROLLING THUNDER Program. Identified seaborne exports amounted to 20,500 metric tons compared with an average monthly volume of 97,300 metric tons during 1966. Coal exports from Hon Gai returned to the low levels recorded in April through June and coal shipments from Cam Pha declined for the seventh consecutive month to a record 32-month low of 9,700 metric tons. The decreasing volume of coal shipments is attributable to the cumulative effects of air strikes on powerplants, transport and coal processing facilities in the Cam Pha - Hon Gai area since last February. Reserve stockpiles of washed and graded coal at these ports are virtually depleted. Pilot reports of air strikes against coal facilities at Cam Pha on 10 September indicate damage was inflicted on the coal-treatment plant. North Vietnam's

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sagging coal exports will probably be further depressed as a result of these strikes.

- 25. (S/NFD) No significant damage was inflicted on bulk petroleum storage facilities or on petroleum supplies during the reporting period. Identified imports of petroleum in August amounted to 22,600 metric tons -- equal to the average monthly rate observed to date in 1967. Of this total, 1,900 metric tons were imported in drums transported in dry cargo vessels, slightly less than the monthly average of 2,600 metric tons in the preceding months of 1967. Since 1 January 1967, imports of petroleum in this form have added 125,000 drums to the estimated inventory of 170,000 in country at the beginning of 1967. Allowing for normal losses, the estimated inventory of drums on hand at the end of August was equivalent to 45,000 metric tons of storage capacity. Consumption of petroleum during August is estimated to have been 19,000 metric tons, while stocks on hand were estimated at about 80,000 metric tons, equivalent to about 120 days of supply.
- 26. (S/NFD) Although identified seaborne imports during August increased some 50 per cent over the July volume, the 108,100 metric tons imported was still some 20,000 metric tons below the average monthly tonnage imported during the first half of 1967. Ship congestion at Haiphong Port, which apparently peaked in late June and early July, was reduced significantly by the end of August. Ship departures exceeded arrivals by seven, and fewer freighters were in Haiphong Port at the end

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of August than in any month since January. This decline in the number of ships in port does not reflect an attendant improvement in port handling capacities or an alleviation of stockpiles in the Haiphong area. It does reflect revised shipping schedules that resulted in 14 ships in port at the end of August compared to 23 at the end of July. Due to the heavy congestion experienced in June-July, dry cargo ships departing during August were in port an average of 33 days and those vessels discharging cargoes of 7,000 metric tons or more were in port an average of 46 days. A decline in these layover times is expected in September. Ships carrying rice and flour have been given priority in discharging, whereas those carrying sugar, coal, and fertilizer have encountered the longest delays.

- 27. (S/NFD) The economic aid delegation, headed by the Minister of Heavy Industry, continued its pilgrimage to Communist countries and thus far has signed grant aid contracts with Communist China, North Korea, Rumania, and Bulgaria. In addition, the Communist countries are continuing to train North Vietnamese students and workers. Since 1 January 1967, agreements have called for the training of at least 16,500 students and workers for periods ranging from one to five years, of which about 9,600 are scheduled to receive training in the USSR.
- 28. (S/NFD) The intensified air war continues to disrupt North Vietnam's traditional trade patterns. Because of damage to and loss of electric power at the Haiphong Cement Plant, North Vietnam has been forced to

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import some cement from Communist China and was recently reported to have negotiated with Bulgaria to import 1,000 metric tons of cement. In addition, a combination of recent reductions in the fish catch and possible curtailment of output at the Haiphong Fish Cannery -- the largest food processing plant in the country -- due to a general shortage of electricity, may be the cause of reported negotiations with the USSR to import canned fish products.

29. (S/NFD) Cumulative measurable damage attributable to the ROLLING THUNDER Program through August is estimated at \$340 million (see Tab B). In addition to the measurable losses, there continue to be many other losses to the economy and to the military establishment which cannot be assigned meaningful values.

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RESULTS OF STRIKES ON NVN TARGETS a/ THRU 9 SEPTEMBER 1967

TABLE 360

	Total Ta: National Capacity	JCS <u>d</u> / Targeted	Str	gets uck d/	e/ No. of	<u>b</u> / Strike	% of National Capacity Destroyed or inactive because
Fixed Targets	(X 1000)	No %	No	%	Attacks	Sorties	of air strikes
Barracks	443 men	65 41.08	57 18	35 1 <b>0</b> 0	382 112	3081 1379	26.78 77
Ammo Depots	112.6 MT	18 100		100	89	728	86.6
POL Storage *	133.5 MT	13 100 29 42,48	13 26	31.2		870	18.94
Supply Depots Power Plants	10550SqFt 192 KW	20 92.1	15	85.8		756	80
Maritime Ports	8.2 ST/Dy	9 97	7	48	28	236	13.4
RR Yards	49.7 ST/Dy		3	54	84	591	13.1
RR Shops	47.7 SI/DY	3 88	2	68	5	38	27.1
Industrial:					<del></del>		
Explosive Plant	1 MT	1 100	1	100	18	111	100
Iron & Stee1	300MT(PIG)	1 100	1	100	24	281	100
Cement Plant	600 MT	1 100	1	100	1	57	100
	Total						% of those targeted
	Targets						0
Airfields	32	12**	8**	36	66	913	23
Naval Bases	15	5	4	57	30	295	25.9
Bridges	1529	61	54		495	4895	71 .
Commo Install	45	5	2		2	15	20
Radar Sites	210	5	5		74	434	75 ,
SAM Sites	164		58		12	388	
Locks and Dams	94	8	2	10.6	2	10	5.3
Ferries	160				7	44	

\* JCS targets only; does not include dispersed storage.

Total Sorties: 14,121

Results f/

\*\* Includes non-JCS numbered Hoa Lac Airfield

Armed Recce Sorties Destroyed Damaged 164,180 Vessels 8,387 15,103 Vehicles 5,545 4,732 RR Stock 1,625 2,555

- a/ Assessments are based on best information received; will be refined as more accurate information becomes available.
- b/ Strike plus flak suppression sorties. Some applied to multiple targets; in this summary assigned to principal target.
- c/ These columns are not additive, since the number of installations, both targeted and struck in some cases, apply to more than one category of targets (i.e., barracks, supply and ammo depots).
- d/ Percentages of national capacity where appropriate. e/ Also numerous attacks during armed recce and other missions.
- $\overline{\underline{f}}/$  Also numerous installations, AA sites, bridges, etc., attacked and road and rail cuts made.

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Value of Economic and Military Damage Attributed to the ROLLING THUNDER Program 1965 Through August 1967

Economic Military

Direct Losses	Million US\$	Direct Losses	Million US\$
Railroad/Highway Bridges	28.9 <u>a</u> / <u>b</u> /	Barracks	$29.0 \frac{a}{}$
Transportation Equipment	65.7	Ammuniction Depots	5.2 <u>a</u> /
Electric Power Plants	29.5 <u>a</u> /	Motor Vehicle and	7 o a/
Petroleum	7.4 17.6	Supply Depots Airfields	7.9 <u>a</u> / 1.1 <u>a</u> /
Manufacturing Facilities Railroad Yards	5.8 <u>a</u> /	Radar and Communication	ns
Maritime Ports	1.4 <u>a</u> /	Sites	2.8
Miscellaneous Armed		SAM Sites	5.2 <u>a</u> / 1.6 <u>a</u> /
Reconnaissance	2.1	Naval Bases	
		Aircraft	32.8
SUBTOTAL, Direct Losses	158.4	Naval Craft	4.6
		Miscellaneous Armed	12.7
Indirect Losses		Reconnaissance	12.7
Exports c/	27.4	TOTAL, Direct Losses	102.9
Agriculture d/	42.5		
Fishing	8.3	TOTAL	
- 0		<u>Million US\$</u>	
SUBTOTAL, Indirect Losse	s 78.2	_ :	
			237
TOTAL, Direct and Indire	ect 236.6	-	<u>103</u> 340 <u>e</u> /
		TOTAL	340 <u>=</u> ′

a. Estimate is incomplete because of inadequate post-strike photography.

c. Including imports of cement necessitated by the loss of production at the Haiphong Cement Plant.

d. It should be noted that losses of agricultural crops are arbitrarily attributed entirely to the indirect effects of the bombing. An unknown part of these losses is in fact due to weather and other natural causes.

e. Excluding the cost of trucks destroyed and damaged in Laos and economic and military facilities and equipment destroyed and damaged by US naval operations along the coast of southern North Vietnam.

b. Of the total, \$5.2 million is estimated to have been expended to date on the repair of damaged and destroyed bridges and \$23.7 million is estimated for complete restoration in the future of bridges damaged or destroyed. In addition, \$1.4 million would be required to make temporary repairs to presently unrepaired bridges.

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NAVY:	
CHIEF OF NAVAL OPERATIONS DNI OP-921E OP-922Y1 OP-922Y2 OP-92B1	2 Cys 1 Cy 1 Cy 1 Cy 1 Cy 1 Cy
AIR FORCE: CHIEF OF STAFF ACS,I/USAF AFNINDE AFNIEBB AFISI (Spec Investigation) AUL (Air Univ Library)	2 Cys 1 Cy 6 Cys 1 Cy 1 Cy 1 Cy
MARINE CORPS: COMMANDANT G-2	l Cy l Cy
CINCPAC CINCPACAF CINCUSARPAC CINCPACFLT COMUSMACV 7AF COMSEVENTHFLT COMATECARSTRIKEFORSEVENTHFLT (CTF 77) CINCLANT CINCSTRIKE CINCSAC SAC 544 CINCTAC AFSTRIKE CONTIC CINCALCOM CINCEUR CINCUSAFE CINCUSAFE CINCUSAFE CINCUSAFE CINCUSAFE CINCUSAFE CINCUSAFE CINCUSAFE CINCUSAFE CINCONAD CIA	2 Cys 10 Cys 1 Cy 2 Cys 2 Cys 2 Cys 1 Cy

# Approved For Release 2002/07/03 : CIA-RDP82S00205R000100060006-2 SECRET—NO FOREIGN DISSEM

DIA:		
DIADR	1	. Cy
DIADD		. Су
DIASC-1	1	Су
JS		. Су
CO-2C	1	. Су
AP	1	. Су
AP-2	]	
AP-2C2		Cys
AP-2D1	·	Cy
AP-2D2	]	. Су
AP-3	]	. Су
AP-4		. Су
AP-4A	3	. Су
AP-4A2 (Pen	t) 6	Cys
AP-4A2 (AHS	)	· Cys
AP-4B4		2 Cys
AP-4C	3	Cys
AP-7	2	Cys
AP-8	2	2 Cys
XX	]	
JT	J	L Cy

